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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/170,915	10/22/98	WUJIA	0157-2000-01

EXAMINER  
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EXAMINER

CRAMER, G

ART UNIT PAPER NUMBER

2811

DATE MAILED: 07/08/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
09/176,315

Applicant(s)  
Maeda et al.

Examiner  
Sara W. Crane

Group Art Unit  
2811



☒ Responsive to communication(s) filed on Apr 28, 1900.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-20 is/are pending in the application.

Of the above, claim(s) 17, 20 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-16, 18-19 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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## **DETAILED ACTION**

### ***Election/Restriction***

Applicant's election with traverse of claims 1-16 and 18-19 in Paper No. 6 is acknowledged. The traversal is on the ground(s) that the two species identified in the previous Office action are not mutually exclusive, because claim 17 depends from claim 1 and claim 20 depends from claim 2. This is not found persuasive because claims are mutually exclusive when one claim recites limitations which under the disclosure are found in a first species but not in a second, while a second claim recites limitation disclosed only for the second species and not the first. MPEP 806.04(f). Claims 17 and 20 each recite a "computer readable recording medium which records thereon a program." A "computer readable recording medium" would be, for example, a hard disk or a floppy disk, which would be a limitation not found in either of claims 1 or 2. Similarly, while claims 1 and 2 each include method steps of "providing" and "determining a layout pattern" which could be expressed in computer programming language, claims 1 and 2 also recite specific structural features of "first semiconductor region," "second semiconductor region," etc. Semiconductor regions would not be found on a hard disk or a floppy disk, and thus claims 1 and 2 recite limitations disclosed only as part of a method of making a device or as part of the device itself, which would not be found as part of a computer program written onto a computer readable medium.

The requirement is still deemed proper and is therefore made FINAL.

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***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-16 and 18-19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The frequency of operation of greater than 500 MHz, and the signal propagation delay time of less than 50 ps, do not appear to correspond to SOI devices that have actually been made. One would, of course, always desire to make devices that can be operated at very high frequency, or with very small delay times, but merely choosing a desired high frequency, or a desired small delay time, does not mean that such a device can actually be achieved in practice. Mere desire for high speed is not sufficient to provide enablement.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamatsu et al. in view of Hwang et al.

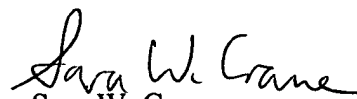
The specific device structure recited in the claims is the same as that taught by Iwamatsu. Hwang column 1, lines 24-40, teaches that the RC time delay of a transmission path should be less than the intrinsic device delay (which is related to gate width). It would have been obvious to design the SOI device of Iwamatsu et al. with small RC time delay for the transmission path wiring because this is taught as desirable by Hwang et al. Absent any showing of criticality, any specific delay, such as 50 ps or 500 MHz, would have been obvious in order to decrease the time of signal transfer within the device. The equation of claims 5 and 18 is simply the equation for the resistance of a wiring path.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Crane, whose telephone number is (703) 308-4894.

The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist, whose telephone number is (703) 308-0956.

  
Sara W. Crane  
Examiner  
Art Unit 2811